



2010 "VOLUNTEERS WORKING WITH INVASIVES" GRANTS REPORT FORM

Display Report

PROJECT BACKGROUND INFORMATION

Project Title:	Palmyra Atoll NWR Invasive Plant Management:Eradicate/Control	
Region: Use region number ONLY	1	
Station:	Palmyra Atoll NWR	
Contact Person: Name and Phone Number	Amanda Meyer 808-792-9551	
Project Description: (Up to 250 words)	Remote atoll ecosystems are havens of biological diversity, but vulnerable to ecological invasion. The prosperity of the plants and animals that inhabit remote atoll ecosystems are dependent on an intact healthy ecosystem free of invasive species. On Palmyra, invasive plants are unraveling well established relationships between terrestrial organisms, by crowding out native species and completely altering the landscape and habitat. Several of these invasive species are nitrogen fixing and/or allelopathic, and can cause wholesale ecosystem shifts when they become dominant. This project will initiate a proactive, adaptive and integrated invasive species management approach to curtail and prevent the further influence of invasive plants and trees on private and refuge lands at Palmyra. This two year project will focus on: 1) Restoration of biological habitat integrity through chemical and mechanical control/eradication of focal invasive species; 2) Volunteer training in the detection, eradication, and control methods so that no lag time occurs by the response team following the detection of an invasion; 3) Early Detection Rapid Response efforts, as outlined in the Biosecurity Plan for Palmyra, to detect new invasive species and increase the likelihood that invasions are localized and within containment/eradication capabilities; and 4) Adaptive Management through post-treatment monitoring and sampling to measure the extent to which our actions contribute to positive change and assure the highest return on our investments.	
List of Invasives Species Targeted:	Common Name	Scientific Name
	Coconut Palm	<i>Cocos nucifera</i>
	Lead tree	<i>Leucaena leucocephala</i>
	Taro vine	<i>Epipremnum pinnatum</i>
	Iron Wood	<i>Casuarina equisetifolia</i>
	Tropical Almond	<i>Terminalia catappa</i>
	Sour Bush	<i>Pluchea indica</i>

Project Status:	InProgress
Project Completion Date or Estimated Completion Date: (mm/dd/yyyy)	10/01/2011

VOLUNTEER INFORMATION

Volunteer Affiliation: (Check all that apply)	VA_Other
Volunteer Involvement: Describe the type of work the volunteers performed. (Up to 150 words)	Treatment Methods: Lead tree and False Almond: 1) Cut with hand pruners and hand saws; 2) Removed all vegetative material 3) Apply Roundup to outer cambium layer of stumps; 4) Cut/stump retreat with Roundup as re-growth occurs. Cocos:1)Cocos were drilled with hand drills to a depth of 2 inches. 2)10 holes were drilled around the tree at breet height or at the base of the tree. All drilled trees were marked with a tree tag. 3) Holes were filled/injected with diluted Roudup (glyphosate). 4) Seedling and small cocos were cut down and Round up was applied to the stump.
Total Number of Volunteers:	9
Total Number of Volunteer Hours:	100
Partnerships: List both new and existing partnerships utilized in this project. (Up to 150 words).	Many of the volunteers were from the Nature Conservancy. The Nature conservency runs the research station on Cooper island in Palmyra Atoll and is crewed by 6 people year round that work in 3 month shifts. This partnership is crutial for the fowrad motion of the refuge in controling and eradicating invasive species.

PROJECT RESULTS

Project Results: Give an overview of the results of the project. Include quantifiable measure of success, such as maps produced, efficacy of control measures, number of sites where invasions were detected early and responded to, number of community contacts, etc. (Up to 250 words).	Thus far three island have been cleared of cocos. Over 2000 cocos were killed. This methods of drilling holes into the trunk and injecting Roundup is very effective. 40 False Almonds have been cut down on Cooper Island and native trees have been planted in their places. Six Iron Wood trees have been killed. One early invasion of Pluchea was detected on Paradise Island and stopped before the bush could fower and spread.
Number of Acres Treated:	20 and still in process
Number of Acres Inventoried and/or Mapped:	in process
Number of Acres Restored:	in process

BUDGET INFORMATION

Budget: Account for funds in broad categories such as equipment, volunteer stipends, travel, coordinator salary/contract, etc.

Total Grant Amount:	\$ \$20,000
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Breakdown of Expenditures:

Category	Total \$ Spent	% of Total Grant
Equipment / Supplies	13,000	65
Chemical	600	0.03
Biocontrol Agents	0	0
Travel	5,000	25

Volunteer Stipends	0	0
Volunteer Coordinator Salary/Contract	0	0
Restoration Materials	0	0
Other	1,400	0.07
TOTAL	20,000	100

Recommendations: (OPTIONAL)

How useful was this program for meeting refuge invasive species objectives and how can it be improved?

This Program has been extremely useful for the refuge. It is still underway and is having a huge impact and great success.

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